

HUMAN RECOMBINANT XCR1 RECEPTOR MULTISCREEN™ STABLE CELL LINE

Data sheet

PRODUCT INFORMATION

Catalog Number: CG1007

Lot Number: CG1007-102022

Quantity: 1 vial (2 x 10⁶) frozen cells

Freeze Medium: CellBanker 2

Host cell: HEK293T Gαq5

Transfection: Expression vector containing full-length human XCR1 cDNA (GenBank accession number NM_005283.2) with FLAG tag sequence at N-terminus

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DMEM, 10% FBS, 1 µg/mL puromycin, 50 µg/ml hygromycin

Stability: In progress

Background: Chemokines and their receptors play a vital role in the regulation of responses in the immune system and in the recruitment of certain lymphocytes. The human chemokine receptor XCR1 is a G-protein-coupled receptor and is associated with the induction of chemotaxis and has been identified in neutrophils, t-lymphocytes, b-lymphocytes. The cytokine receptor XCR1 is a specific marker for human CD141+ DCs and has been reported to play an important role in antigen cross-presentation. There are studies suggesting that agonists targeting XCR1 are effective in producing anti-tumoral T-cell responses.

Application: Functional assays

Figure 1

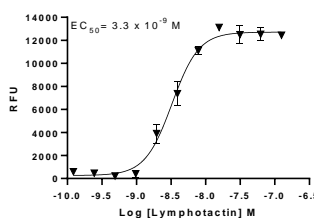


Figure 2

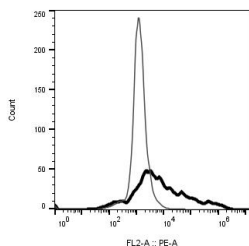


Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with MULTISCREEN™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01). **Figure 2.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick line: receptor-expressing cells.

References:

Askmyr et al. (2021). Pattern recognition receptor expression and maturation profile of dendritic cell subtypes in human tonsils and lymph nodes. *Hum Immunol.* Dec;82(12):976-981.

Hartung et al (2015). Induction of potent CD8 T cell cytotoxicity by specific targeting of antigen to cross-presenting dendritic cells in vivo via murine or human XCR1. *J Immunol.* Feb 1;194(3):1069-79.

Huang et al. (2001) Neutrophils and B cells express XCR1 receptor and chemotactically respond to lymphotactin. *Biochem Biophys Res Commun* 281:378-382.

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